Title (en)

APPARATUS AND METHOD FOR PROVIDING INFORMATION ON PARKINSON'S DISEASE USING NEUROMELANIN IMAGE

Title (de)

VORRICHTUNG UND VERFAHREN ZUR BEREITSTELLUNG VON INFORMATION ÜBER MORBUS PARKINSON UNTER VERWENDUNG VON NEUROMELANIN-BILDERN

Title (fr)

APPAREIL ET PROCÉDÉ POUR FOURNIR DES INFORMATIONS SUR LA MALADIE DE PARKINSON À L'AIDE D'UNE IMAGE DE NEUROMÉLANINE

Publication

EP 4039186 A1 20220810 (EN)

Application

EP 21166617 A 20210401

Priority

KR 20210016667 A 20210205

Abstract (en)

The Parkinson's disease information providing apparatus using a neuromelanin image according to an aspect of the present disclosure includes an image receiving unit which acquires an MRI image obtained by capturing a brain of a patient; an image preprocessing unit which preprocesses the acquired MRI image to observe the neuromelanin region used as an image bio marker of the Parkinson's disease; an image processing unit which analyzes the preprocessed MRI image to classify a first image including the neuromelanin region and detects the neuromelanin region from the classified first image; and an image analyzing unit which diagnoses whether the patient has the Parkinson's disease by analyzing whether the detected the neuromelanin region is normal.

IPC 8 full level

A61B 5/055 (2006.01); **A61B 5/00** (2006.01); **G01R 33/48** (2006.01); **G01R 33/483** (2006.01); **G01R 33/56** (2006.01); **G06T 7/00** (2017.01)

CPC (source: CN EP KR US)

A61B 5/0042 (2013.01 - KR US); **A61B 5/055** (2013.01 - EP KR US); **A61B 5/4082** (2013.01 - EP KR US); **A61B 5/4848** (2013.01 - KR); **A61B 5/7246** (2013.01 - US); **A61B 5/7264** (2013.01 - EP KR US); **A61B 5/7267** (2013.01 - US); **G01R 33/4806** (2013.01 - KR); **G01R 33/5608** (2013.01 - EP KR); **G06F 18/24** (2023.01 - US); **G06F 18/241** (2023.01 - CN); **G06T 3/40** (2013.01 - US); **G06T 7/0012** (2013.01 - CN EP KR); **G06T 7/11** (2016.12 - CN EP KR US); **G06T 7/174** (2016.12 - US); **G06T 7/194** (2016.12 - US); **G16H 30/40** (2017.12 - KR); **G16H 50/20** (2017.12 - CN KR); **G16H 50/30** (2017.12 - CN); A61B 2576/026 (2013.01 - EP); G06T 2207/10088 (2013.01 - CN EP); G06T 2207/10096 (2013.01 - US); G06T 2207/20081 (2013.01 - CN US); G06T 2207/20084 (2013.01 - US); G06T 2207/20104 (2013.01 - CN); G06T 2207/20128 (2013.01 - US); G06T 2207/20132 (2013.01 - US); G06T 2207/30016 (2013.01 - CN EP US)

Citation (applicant)

- KR 101754291 B1 20170706 - LEE HYUN SUB [KR]
- KR 20160058812 A 20160525 - TRANSMURAL BIOTECH S L [ES]

Citation (search report)

- [XAI] WO 2020077098 A1 20200416 - UNIV COLUMBIA [US], et al
- [IA] CN 111681184 A 20200918 - HUASHAN HOSPITAL FUDAN UNIV
- [A] CHO SE JIN ET AL: "Diagnostic performance of neuromelanin-sensitive magnetic resonance imaging for patients with Parkinson's disease and factor analysis for its heterogeneity: a systematic review and meta-analysis", EUROPEAN RADIOLOGY, vol. 31, no. 3, 4 September 2020 (2020-09-04), pages 1268 - 1280, XP037365515, ISSN: 0938-7994, DOI: 10.1007/S00330-020-07240-7

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Designated extension state (EPC)

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DOCDB simple family (application)

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